

1



# Mexico

## Agriculture Insurance Market Review

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opportunities for all

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### Strengthening a Successful Public-Private Partnership

#### The Need for Agricultural Insurance in Mexico

Agriculture plays an important role in Mexico, particularly in employment and the food security of rural households. The broad agricultural sector<sup>1</sup> accounted for 17 percent of Mexico's GDP in 2011, with the North-western parts of the country, where cereals are widely grown, contributing the most to agricultural GDP and the South and South-eastern parts contributing a smaller amount, but with greater emphasis on cash crops and fruits and vegetables.

The agricultural sector also plays an important social role given the importance of agriculture income in the total income of the rural poor. Although employment in agriculture has declined over the past 10 years (from 18 percent in 2000 to 14 percent in 2012), it provides formal employment and income to more than 3 million people (including workers and their families). One fifth of working men in Mexico are formally employed in agriculture as are 4 percent of working women.

The agriculture sector in Mexico is, however, highly vulnerable to a range of exogenous shocks, such as weather events that affect production, output/input price volatility, and threats to animal and plant health. Weather shocks have been one of the main causes of recent economic losses in the agriculture sector, particularly the recent frost and drought in 2011. During the past two decades, over 80 percent of the

<sup>1</sup> The broad agricultural sector's contribution to GDP includes primary production (4%), agribusiness (5%), food industry (4%), and other food-related industry (4%).

total economic losses from weather-related disasters occurred in the agricultural sector (CEPAL, 2007). Additionally, 76 percent of the total cultivated area is rainfed, which exposes agricultural production to rainfall and temperature changes.

Given the centrality of agriculture in Mexico's employment and in the livelihood of the rural poor, coupled with the exposure of the agriculture sector to systemic weather events and market volatility, both farmers and the Government have to manage risks in order to provide a safety net for the rural poor and ensure that the agriculture sector is sustainable.

#### The Agricultural Insurance Market in Mexico

The agricultural insurance market in Mexico is among one of the most developed in Latin America and the Caribbean (LAC). Like many other OECD countries, Mexico has a well-defined public-private partnership for agricultural insurance, termed the National System for Insurance of the Rural Sector (SNAMR). While agricultural insurance penetration in Mexico is one of the highest in LAC, it is still lower than the average in OECD countries.<sup>2</sup>

The first public agricultural insurance program in Mexico dates back to 1942. The program was based on arrangements between mutual unions and private insurance companies. In 1961 the first specialized public company for crop insurance was created, the

<sup>2</sup> In 2007, Mexico showed a level of agriculture insurance penetration of 0.38 percent of Agricultural Gross Domestic Product, which is below the OECD average of 1.36 percent.

National Crop and Livestock Insurance Company (ANAGSA), which ultimately faced high losses due to lax monitoring, unsound pricing, and fraudulent claims. A reform to the Mexican crop insurance system in 1991 replaced ANAGSA with the current public reinsurer Agroasemex, and also adopted a special legal framework to support mutual insurance funds, or Fondos. Since 2002, Agroasemex has left the direct commercial crop insurance market and has also acted as an agricultural reinsurer in the private market, allowing for the expansion of private insurance in the country and especially of Fondos' market share.

The most recent program implemented by the Government of Mexico is the CADENA program, which is targeted at small farmers who are excluded from agricultural insurance and credit. Launched in 2003, CADENA is intended to provide State Governments with co-funding to assist farmers after a natural disaster or to provide a subsidy for the Government to purchase insurance in order to have enough fiscal resources to respond ex post.

The SNAMR has identified three distinct target groups for programs and policies related to agricultural insurance. These three groups and the related key programs and policies are:

1. *Commercial farmers with access to credit for whom agriculture insurance is a requirement to obtain financing from the Banks, safeguarding the loan:* For these farmers, credit policies and programs through FIRA (a trust fund of the Central Bank), Financiera Rural (a first tier public sector Bank that provides credit to agriculture), and a public subsidy to commercial agriculture insurance premiums have been the instruments used by the Government. The premium subsidy was originally designed to support the purchase of commercial insurance, but the Government is now seeking to expand it to farmers who are not currently insured through the promotion of the public basic crop insurance scheme, called SAB.

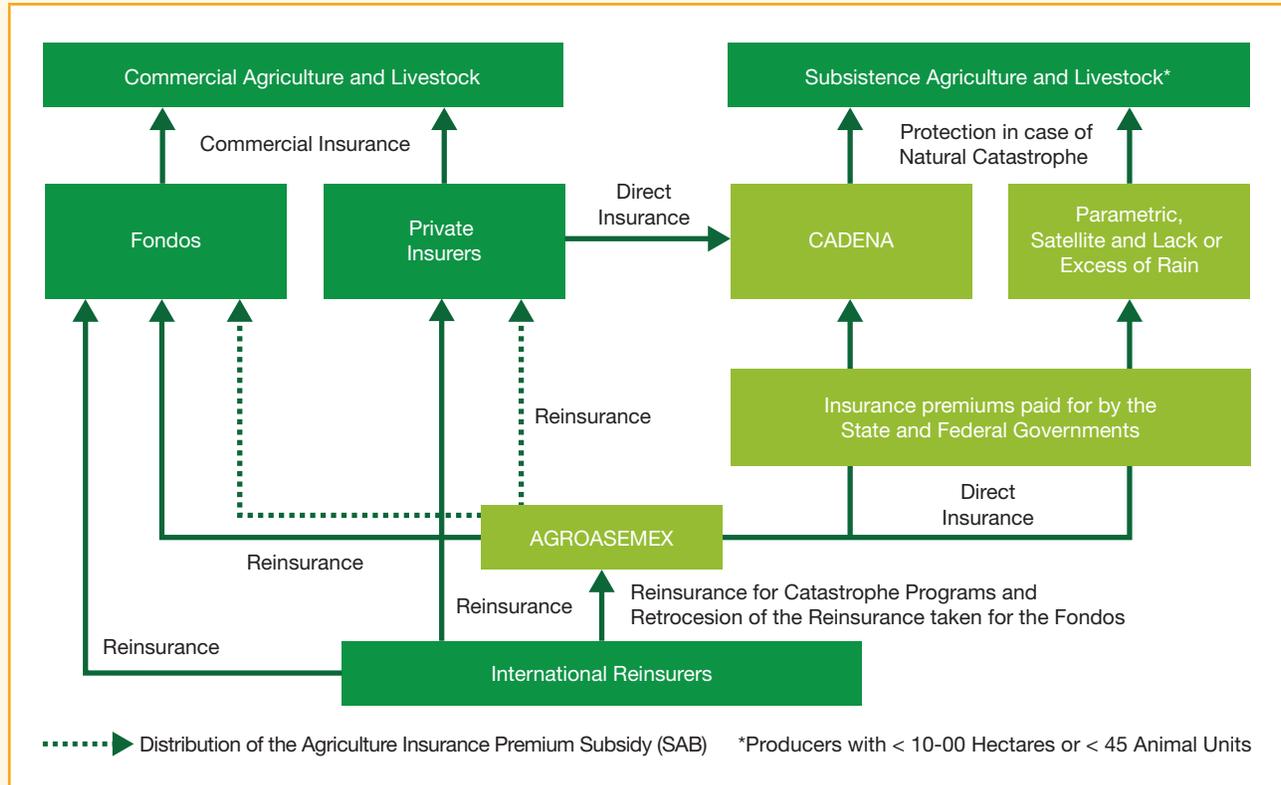
2. *Farmers with some difficulty obtaining credit, who have been able to pool risks, organize insurance and gain access to financing from banks or financial institutions:* For these farmers, the policies and support programs to mutual insurance funds (Fondos) have been the main instruments, including the premium subsidies of insurance policies sold by Fondos. Fondos were originally supported by the Government in order to allow farmers to pool risks and access credit by obtaining insurance, and have now evolved into memberships that include large commercial farmers.

3. *Small, vulnerable farmers with no access to commercial credit or insurance:* The CADENA program was originally designed for this group of the most vulnerable farmers with the central objective of being a small farmer safety net through the co-financing by the Ministry of Agriculture, Livestock, and Fisheries (SAGARPA) and State budgetary resources to respond to climatological contingencies in rural areas. Today, however, CADENA is also financing premiums for the catastrophic layers of the commercial insurance products sold under the SAB scheme. Furthermore, an extension of eligibility from 10 hectares to 20 hectares recently introduced by CADENA in 2013 will bring more commercialized farmers into CADENA, especially in irrigated areas.

Figure 1 demonstrates the relationships between the most important programs and players in Mexico's system of agricultural insurance.

Since 1997, the Mexican agricultural insurance market has been based on a public-private partnership (PPP). Private insurance companies, reinsurers, as well as Fondos, have been steadily increasing premiums collected from agriculture insurance. In recent years, the growth in premiums for the CADENA catastrophic coverage to State Governments has been an attractive new business line for private insurance companies.

**Figure 1. Mexican System of Agricultural Insurance**



*Source: Authors.*

However, the PPP in the agriculture insurance market has been lacking a medium to long-term strategy in the past decade. Individual programs supporting agriculture insurance have been managed in an isolated manner, with a low level of coordination. At this point in the development of the Mexican agriculture insurance market, there is a clear need to develop a medium to long-term strategy and consider the creation of a platform for decision making and coordination across all programs and policies related to the management and transfer of agriculture risks.

### Strengthening the Public Private Partnership

The Government of Mexico is facing several constraints and challenges in designing an improved strategic and comprehensive agricultural insurance framework. These constraints can be grouped into 5 major categories:

- a) **Strategic:** Public and private programs in the agriculture insurance market need better

coordination and a medium and long-term strategy to become more effective.

- b) **Technical:** The Mexican agricultural insurance system has a mixed history of success at the technical level. On one hand, the system has benefitted from the development of strong technical underwriting and loss adjustment capabilities that are available for both public and private sector actors; on the other hand, the system has a weaker capacity to define long-term actuarial pricing benchmarks for different insurance programs.
- c) **Financial:** Financial risk management practices of the system have undergone limited changes in the past two decades. Private companies and Fondos retain very little risk and therefore are highly dependent on reinsurance capacity, with Fondos especially dependent on the reinsurance capacity offered by Agroasemex, whose own risk transfer strategy (retrocession of risk to

external markets) focuses on intermediate events, limiting the budget for risk transfer. An extreme frost in 2010-11 also highlighted the low pricing of premium rates from Agrosemex to Fondos in the State of Sinaloa. The implicit consequence has been that the Federal Government has acted as residual reinsurer (or “reinsurer of last resort”) for extreme events.

- d) **Legal and regulatory:** The direct supervision of the system by the Government has been limited and, in some cases, even delegated to third parties. The current supervisory framework for Fondos has important weaknesses with regards to the operational independence and objectivity of the supervisory authorities and the consistency of the current system of integrating agencies in carrying out supervisory work. In addition, the Government has had a very limited role in the regulation of rates in the system.
- e) **Product design and operations of existing programs:** Agrosemex has been the main source of agriculture insurance market innovation and new product development. Fondos and private companies have played a limited role in this area, and there is ample opportunity for a closer coordination of the R&D agenda. Additionally, the Government plans to continue migrating from ex post direct payments following natural disasters to ex ante risk based approaches, the success of which is dependent on the capacity of the system to generate the necessary technical conditions.

Given the global leadership of Mexico in designing and implementing agriculture insurance policies

and programs, several options that are available to improve existing programs and the coordination between programs will be unprecedented in terms of international experiences. Mexico has been a leader in implementing innovative PPP for programs to develop an agriculture insurance market and cover small vulnerable farmers. The Fondos system is a unique program without direct international comparison, and the CADENA program with the use of index-based products has been followed worldwide as an example of moving from ex post towards ex ante risk management and transfer.

The challenge is now for Mexico to learn from this experience and continue to introduce reforms and improvements. Although fundamental changes need to occur to reach sustainability, such as the case of Fondos and the reinsurance role of Agrosemex, this should not be at the expense of the knowledge and capital accumulated so far. A carefully drafted transition strategy and integrated PPP program needs to be put in place.

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